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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,714	07/20/2005	Kazuhiro Haniya	052826	5776

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EXAMINER	
PILKINGTON, JAMES	
ART UNIT	PAPER NUMBER
3682	

MAIL DATE	DELIVERY MODE
06/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/542,714	HANIYA, KAZUHIRO	
	Examiner	Art Unit	
	JAMES PILKINGTON	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 November 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/20/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 8 and 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

3. Claims 1-3 are objected to because of the following informalities:

- Clms 1-3 recite "A reduction device of an industrial robot characterized in a reduction device of an industrial robot having..." should be - - A reduction device of an industrial robot comprising... - -
- Clm 3 recites "...is axially support by other end of the lower arm..." should be - - is axially supported by the other end of the lower arm - -
- Clm 5, "constitutedby" should be - -constituted by- -

Appropriate correction is required.

4. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Constituted does not mean "consists of" thus rendering the claim to require at least one reduction device which is recited in claim 1.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3 recite the limitation "which is a reduction device of an industrial robot." It is not clear what the "which is" is referencing. At this point in the claim the Applicant has only claimed the arms of the robot, no gears for a reduction has yet been claimed. This limitation appears to be repeating the preamble and restating the reduction device and the robot and should read - – the reduction device of the industrial robot including -.

Claims 1-3 recite the limitation "wherein the small gear is arranged..." It is not clear what additional structure the Applicant is attempting to claim. Current this portion of the claim is written in a generally narrative form and only appears to be claiming how the gears are assembled which does not structurally limit the claim.

Claims 1-3, the terms "lower" (claims 1-3) and "upper" (claim 3) are relative terms which renders the claim indefinite. No frame of reference has been establish for determination of what is to be considered upper and lower, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What is the reference point for determining what is upper and lower? If compared to the base both arms are upper arms. Is the Applicant comparing the upper and lower arm to each other? If so, then the upper arm should be mentioned in claims 1 and 2.

Claims 1-3, the terms "large" and "small" are relative terms which renders the claim indefinite. The specification does not provide a standard for determining what is to be considered large and small, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Does the Applicant intend to claim a larger gear meshed with a smaller gear?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsai, USP 5,245,263.

Re clms 1 and 5, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) installed in an XY plane of XYZ orthogonal coordinates, a rotating barrel portion (1st arm link) rotatably attached to the robot base (O), and a lower arm (2nd link) of which one end is axially supported by the rotating barrel portion, the reduction device of the industrial robot including at least one stage of a gear train where a large gear (to the right of 5) fixed to the robot base (O) and a small gear (at 2) axially supported in the rotating barrel portion (1st arm link) are brought in mesh with each other.

Re clms 2 and 5, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) arranged in an XY plane of XYZ orthogonal coordinates, a

rotating barrel portion (1st arm link) rotatably attached to the robot base, and a lower arm one end of which is axially supported by the rotating barrel portion, the reduction device of the industrial robot comprising at least one stage of a gear train at which a small gear (to the right of 8) axially supported by the robot base (O) and a large gear (above 1) which fixed in the rotating barrel portion (extends inside the 1st arm link) are brought in mesh with each other.

Re clms 3 and 5, Tsai discloses a reduction device of an industrial robot comprising a robot base (O) installed in an XY plane of XYZ orthogonal coordinates, a rotating barrel portion (1st arm link) rotatablv attached to the robot base (O), a lower arm (2nd arm link) one end of which is axially supported by the rotating barrel portion (1st arm link), and an upper arm (3rd arm link see Figure 5) one end of which is axially supported by the other end of the lower arm (2nd arm link), the reduction device comprising at least one stage of a gear train at which a large gear (left of label "4th input" in Figure 5, attached via axis Z2) fixed to the lower arm (link 2) and a small gear (gear 5) axially supported in the rotating barrel portion (link 1) are brought in mesh with each other.

Re clm 4, Tsai discloses that the the gear train of the reduction device is constituted by two stages (9 to 8, 8 to 1 and 1 to 2 makes a two stage transmission, see Figure 3).

Re clm 6, Tsai discloses that a center portion of the large gear (labeled as A2 in Figure 6d) includes a communication hole (for the shaft connected to A1 to pass).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. P./
Examiner, Art Unit 3682
6/12/08

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3682